

REMARKS

Applicants acknowledge the receipt of the Office Action dated 14 June 2005 in which the Examiner 1) rejected claims 1, 2, 4-9, and 20-26 under 35 U.S.C. 102(b) as anticipated by *Oguma et al.* (U.S. Pat. No. 6,594,454); 2) rejected claims 3 and 15-19 under 35 U.S.C. 103(a) as obvious over the combination of *Oguma et al.* and the knowledge of a person having ordinary skill in the art; and 3) objected to claims 10-14 as being dependent upon a rejected base claim, but allowable if rewritten to include all limitations of the base claim and any intervening claims.

In this Response, Applicants are: 1) canceling claims 9, 17, and 22; and 2) amending claims 1, 5, 10, 15, 20, and 23-26. The claims are amended as shown above, with amendment status also indicated. All changes are shown by underlining the added text and double-bracketing and/or strikethrough of deleted text.

A. 35 U.S.C. 102(b) Rejections

Examiner has rejected pending claims 1, 2, 4-9, and 20-26 (including independent claims 1, 5, 20, and 25) under §102(b) as being anticipated by *Oguma et al.* Without conceding the appropriateness of this rejection, Applicants have elected to amend independent claims 1, 5, 20, and 25 to refine the scope of the claims and emphasize the distinguishable aspects of Applicants' invention. Dependent claim 22 has been cancelled as the limitations in that claim have been incorporated into independent claim 20. Dependent claims 23 and 24 have been amended to depend directly from independent claim 20.

I. Claims 1-4, 5-8, and 20-24

Independent claims 1, 5, and 20 now include an insulating or nonconductive wall disposed between an electrical contact and a shaft. The *Oguma et al.* reference does not teach

or suggest this limitation. Figures 1, 6, and 7 of the *Oguma et al.* reference (reproduced below) clearly show that there is no insulating or nonconductive wall disposed between the disclosed electrode 29 and the shaft of permanent magnet 17.

FIG. 1

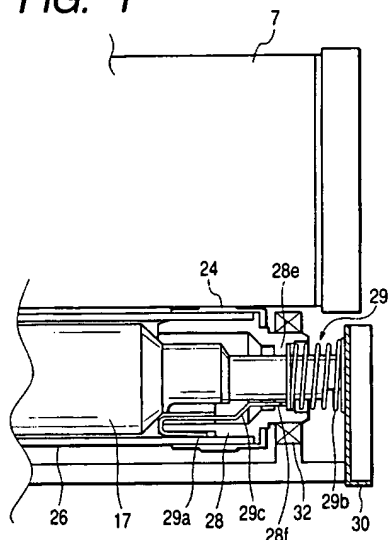


FIG. 6

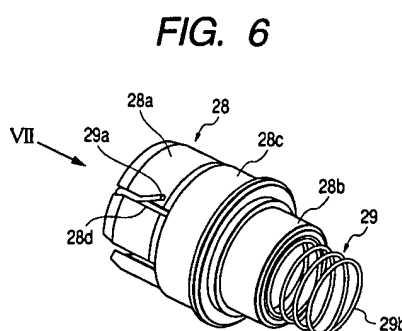
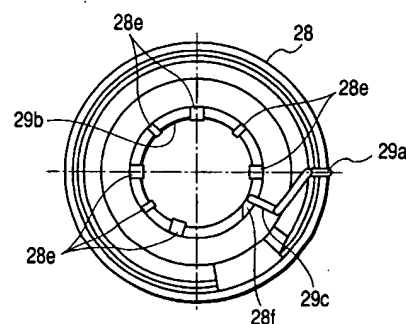


FIG. 7



Specifically, Figures 6 and 7 show that the electrode 29, including the coiled spring portion 29b of electrode 29, forms an inner diameter through which the shaft of magnet roller 17 passes. Further, Figures 1 and 6 show that this coiled portion 29b extends from within and beyond the end of sleeve flange 28. As such, there is no insulating or nonconductive wall disposed between the electrode 29 and the shaft of permanent magnet 17. This configuration is confirmed at column 7, lines 13-16 of the *Oguma et al.* reference, which reads, "The coil spring 29b and the contact portion 29a are connected with each other through the connecting portion 29c positioned in the inside of the sleeve flange 28." Unlike Applicants' embodiments, the configuration disclosed in the *Oguma et al.* reference may be prone to electrically biasing the shaft of permanent magnet 17. The coiled spring portion 29b may buckle and deflect laterally when compressed between sleeve flange 28 and bias electrode 30. Accordingly, the *Oguma et al.* reference lacks an insulating or nonconductive wall between the electrode 29 and shaft of permanent magnet 17 and does not anticipate Applicants' amended claims 1, 5, and 20.

Applicants' respectfully submit that independent claims 1, 5, and 20, and dependent claims 2-4, 6-8, and 21-24 are allowable over the prior art of record.

II. Claims 25-26

Independent method claim 25 now includes a step of "electrically connecting an electrical contact to the interior surface of said hollow cylindrical member while interposing an insulating wall at least partly between said electrical contact and said shaft." As discussed above, the *Oguma et al.* reference does not teach or suggest this limitation. The *Oguma et al.* reference does not show any insulating surface or wall between the electrode 29 and shaft of permanent magnet 17. Since the *Oguma et al.* reference does not teach or suggest this limitation, amended claim 25 is allowable over the prior art of record. Claim 26 depends directly from claim 25 and should be allowable for this reason alone. Furthermore, claim 26 has been amended to include the step of "electrically connecting a conductive hub to the electrical contact and to the interior surface of said hollow cylindrical member while interposing said insulating wall at least partly between said conductive hub and said shaft." The *Oguma et al.* reference does not teach or suggest the use of a conductive hub, let alone interposing an insulating wall between this conductive hub and an axial shaft. Therefore, claim 26 is allowable for this additional reason.

B. 35 U.S.C. 103(a) Rejections

Examiner has rejected pending claims 15-19 under §103(a) as being obvious over the combination of *Oguma et al.* and the knowledge of a person having ordinary skill in the art. Without conceding the appropriateness of this rejection, Applicants have elected to amend independent claim 15 to refine the scope of the claims. Claim 15 has been amended to include

“an insulating end cap disposed axially within said hollow cylindrical member, said end cap including an inner wall, said brake member comprising a coil disposed around the inner wall and operative to impart a torque on said cylindrical member.” This claim amendment incorporates the limitations of originally filed claim 17, which has been cancelled. Further, claim 15 now recites a coil that is disposed around an inner wall of an insulating end cap. This latter limitation is not taught or suggested by the *Oguma et al.* reference. As Figures 1, 6, and 7 of the *Oguma et al.* reference shown above illustrate, the disclosed coiled spring portion 29b is positioned within the interior diameter of the sleeve flange 28. Thus, the coiled spring portion 29b does not wind or wrap around any inner wall of the sleeve flange 28 or any other insulating end cap. Accordingly, independent claim 15, and dependent claims 16 and 18-19 are nonobvious and allowable over the prior art of record.

C. Claims 10-14

The Examiner objected to original claims 10-14 as being dependent upon a rejected base claim, but allowable if rewritten in independent form. Accordingly, Applicants have amended claim 10 to include the limitations of originally filed independent claim 5 and intervening claim 9. Claim 9 has been cancelled. No other substantive changes have been made to claim 10. Having amended claim 10 per the Examiner's suggestion, Applicants respectfully request allowance of claim 10 and dependent claims 11-14.

D. Conclusion

Applicants respectfully request consideration of the above remarks and amendments, and allowance of all pending claims. If the Examiner feels a telephone conversation is

necessary for discussing the issues, he is invited to call the number indicated below. Thank you
for your time and examination in this matter.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.

By:

A handwritten signature in black ink, appearing to read "Edward H. Green, III", with a long horizontal flourish extending to the right.

Edward H. Green, III
Registration No. 42,604

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844